

Unit Planning Guide: Grade 5 Unit 7 of 9

Unit Title: Measurement and Data	Pacing (Duration of Unit): 4 Weeks
Grade: 5	Buffer Day(s): 1 week

Desired Results

Transfer Goals (Priority practice standards in **bold**)

Students will be able to independently use their learning to:

- MP.1. Make sense of problems and persevere in solving them.
- MP.2. Reason abstractly and quantitatively.
- MP.3. Construct viable arguments and critique the reasoning of others.
- MP.4. Model with mathematics.
- MP.5. **Use appropriate tools strategically.**
- MP.6. **Attend to precision.**
- MP.7. **Look for and make use of structure.**
- MP.8. Look for and express regularity in repeated reasoning.

Established Goals (2011 MA Curriculum Frameworks Standards Incorporating the Common Core State Standards)

Prerequisite Standards:

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Standards (Priority Standards in **bold**):

- **5.MD.1: Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real-world problems.**
- **5.MD.2: Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.***

WIDA for English Language Learners

Standard 1: ELLs **communicate** for **Social** and **Instructional** purposes within the school setting
 Standard 3: ELLs **communicate** information, ideas and concepts necessary for academic success in the content area of **Mathematics**

In the lesson planning stage, teachers will need to differentiate lessons for ELLs. In order to accomplish this they will need: 1.) this curriculum map, 2.) a list of their ELLs and their proficiency levels, and 3.) appropriate language

<ul style="list-style-type: none"> 5.NS.MA.1: Use positive and negative integers to describe quantities such as temperature above/below zero, elevation above/below sea level, or credit/debit. 	function expectations and scaffolds or supports.

Meaning (*Mostly assessed through Performance Tasks/Assessments)

<p>Big Ideas:</p> <ul style="list-style-type: none"> Measurements in the Metric System are converted using a base ten system. Whole number and fractional data can be represented with/on a line plot 	<p>Essential Questions: (Questions which frame ongoing and important inquires about the big ideas. They are written for students and used in daily instruction to help engage students in meaningful thinking.)</p> <ul style="list-style-type: none"> How does what I measure influence how I measure? Why do I measure? Why do we need standard units of measurement? How does the type of data influence how I display it?
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Acquisition (*Mostly assessed through traditional summative assessments)

Knowledge: Key basic concepts, facts, and key terms (written in phrases) students should be able to recall independently.

Students will know...

- Positive and negative numbers can be used to describe contextual situations involving money, temperature, elevation
- The existence of two different measurement systems
- The data on a line plot represents information from real-life scenarios

Key Academic Vocabulary:

- Millimeter(mm), Centimeters(cm), Decimeter(dm), Meter(m), Kilometer(km)
- Inches(in), Feet(ft), Yards(yd), Mile(mi)
- Milliliter(mL), Centiliter(cL), Liter(L),
- Ounces(oz), Cups(c), Pint(pt.), Quart(qt), Gallon(g)
- Milligrams (mg), Grams(g), Kilograms(kg)
- Ounces(oz), Pounds(lbs), Tons(T)
- Metric System, Imperial/Customary/English/Standard System
- Positive integer, Negative Integer
- Line plot, Data set
- Convert

Skills: The discrete skills and process students should be able to use independently

Students will be skilled at:

- Converting different sized measurements within a system (Applying).
- Creating a line plot to display a data set (whole numbers and fractions) (Creating).
- Interpreting and manipulating data (including fractions) in a line plot to solve problems (Evaluating).

Resource Suggestions:	